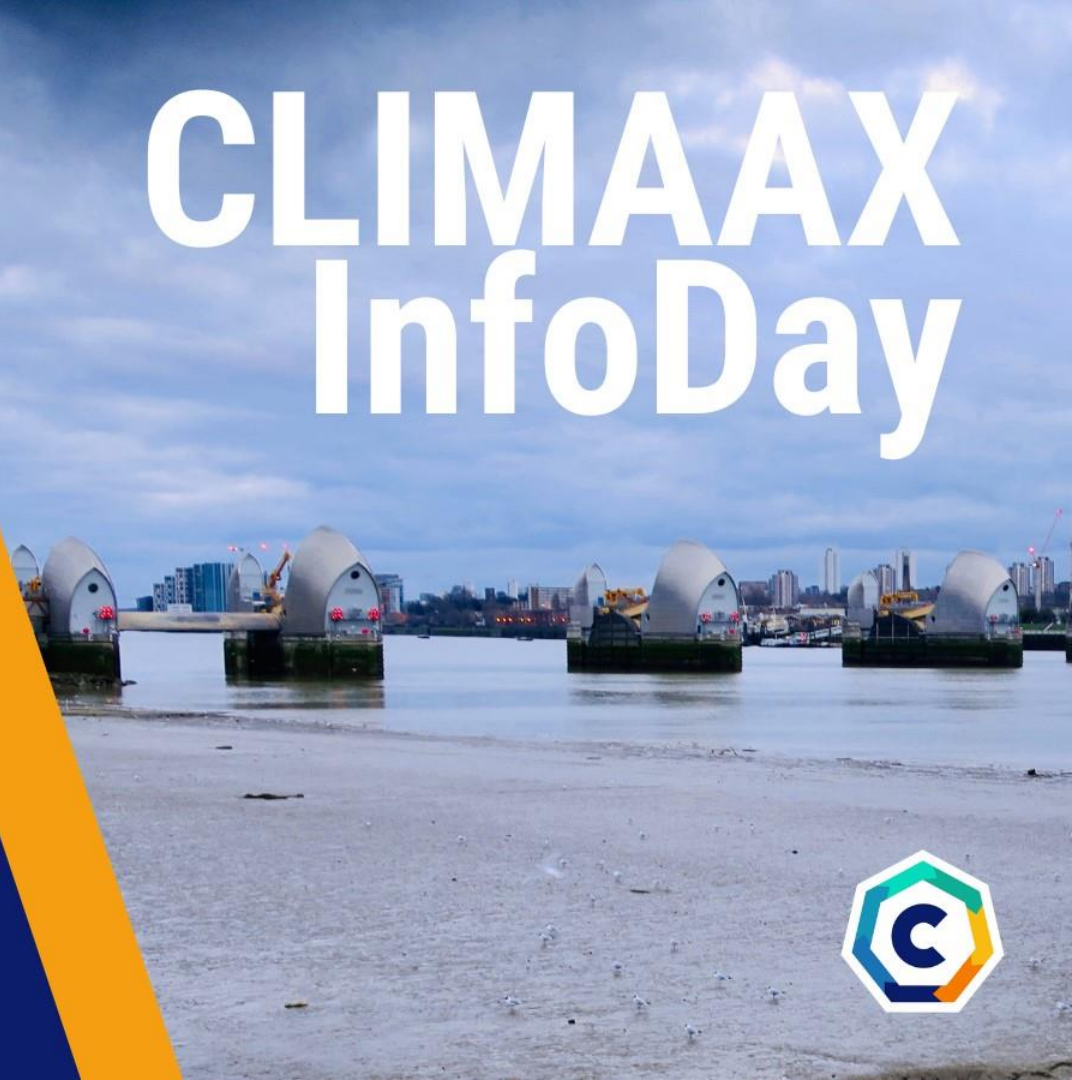
23 NOVEMBER
13:00-15:15 (CET)

CLIMAAX InfoDay



ONLINE EVENT

Empowering regions for climate resilience

Housekeeping

This session is recorded

Raise your hand to ask a question during dedicated Q&A moments or write in the chat!

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Agenda

Time	Segment
13:00 – 13:05	Welcome and agenda-setting.
13:05 – 13:20	Project overview.
13:20 – 13:30	Q&A
13:30 – 13:50	The importance of Climate Risk Assessments
13:50 – 14:00	Q&A
14:00 – 14:15	CLIMAAX Toolbox: A Comprehensive Introduction.
14:15 – 14:25	Q&A
14:25 – 14:45	Introduction to the Pilot Regions
14:45 – 15:05	Introduction to the Open call
15:05 – 15:15	Closing remarks and next steps

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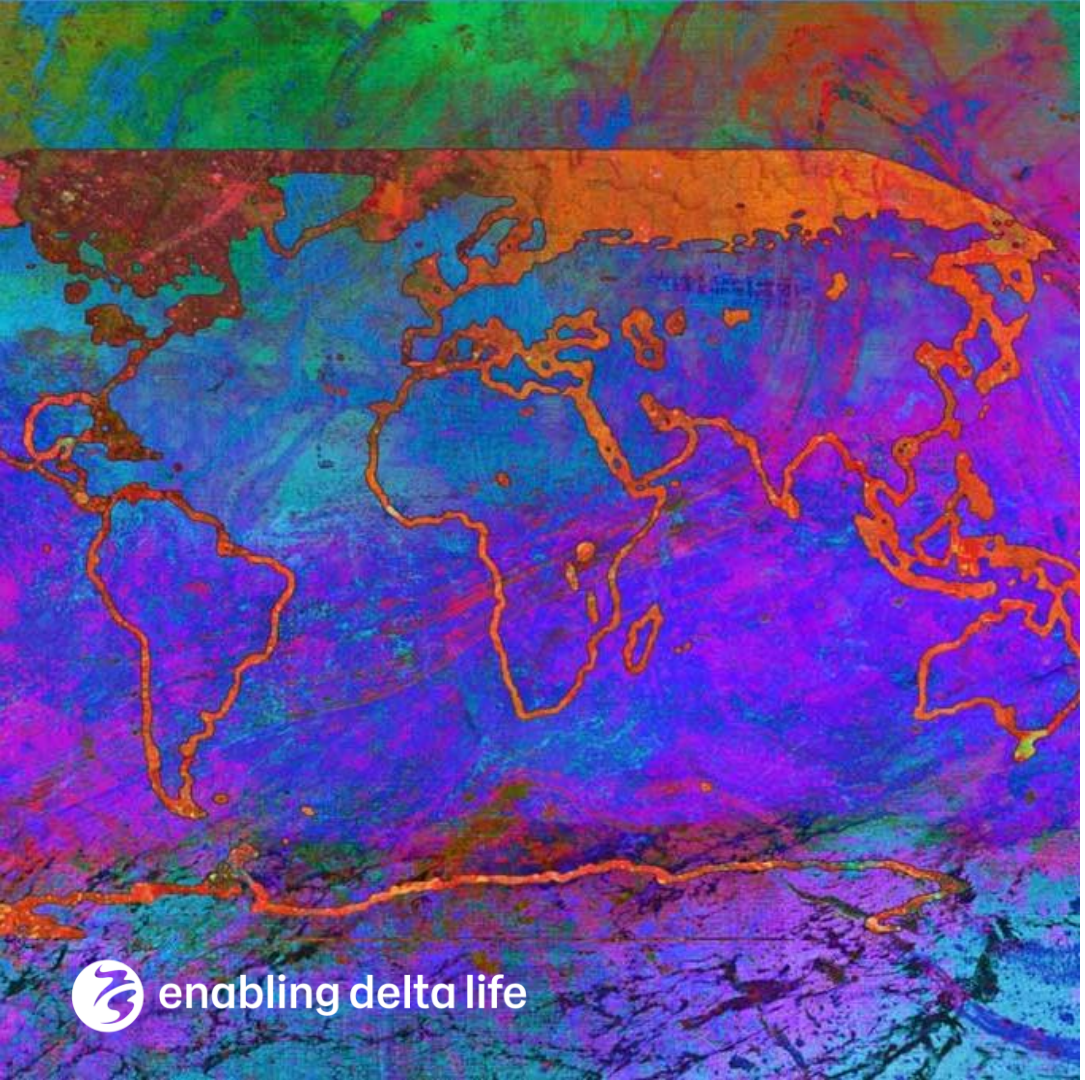

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climate ready regions

CLIMAAX

CLIMate risk And vulnerability Assessment framework and toolboX

The importance of regional Climate Risk assessments

Bart van den Hurk
Frederiek Sperna Weiland

Regional Climate Risk Assessments are very diverse

Many challenges

Multiple
data sources

Our motto:
standardized flexibility

Many regions

The pillars of CLIMAAX

Framework for regional CRA

→ supporting civil protection and climate adaptation

Toolbox and pilots

→ testing data needs and diversity of requests

Cascading fund

→ Financial support for >60 regions

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The CLIMAAX framework

Norms & principles
- Inventory of experience, best practices
- Consultation in regions & sectors

Practical guidance
- Past and future trends
- Risk indicators & viewpoints

Follow-up
- uptake into DRM and climate adaptation strategy

The CRA toolbox principles

- **Base layer: similar to Risk Data Hub (regional climate/exposure/vulnerability data from pan-European datasets) (non-expert user)**
- **Dashboard layer: online risk assessment tool with local data (local user)**
- **Download layer: local manipulation of all scripts and data (advanced user)**

The cascading fund

Financial support for regions

- At least 60 regions & communities
- Criteria include diversity and needs

Formal call procedure

- Selection procedure & criteria

1st Call open

8 December 2023 – 8 March 2024

- 2 rounds
- 2yr projects finalize autumn 2026

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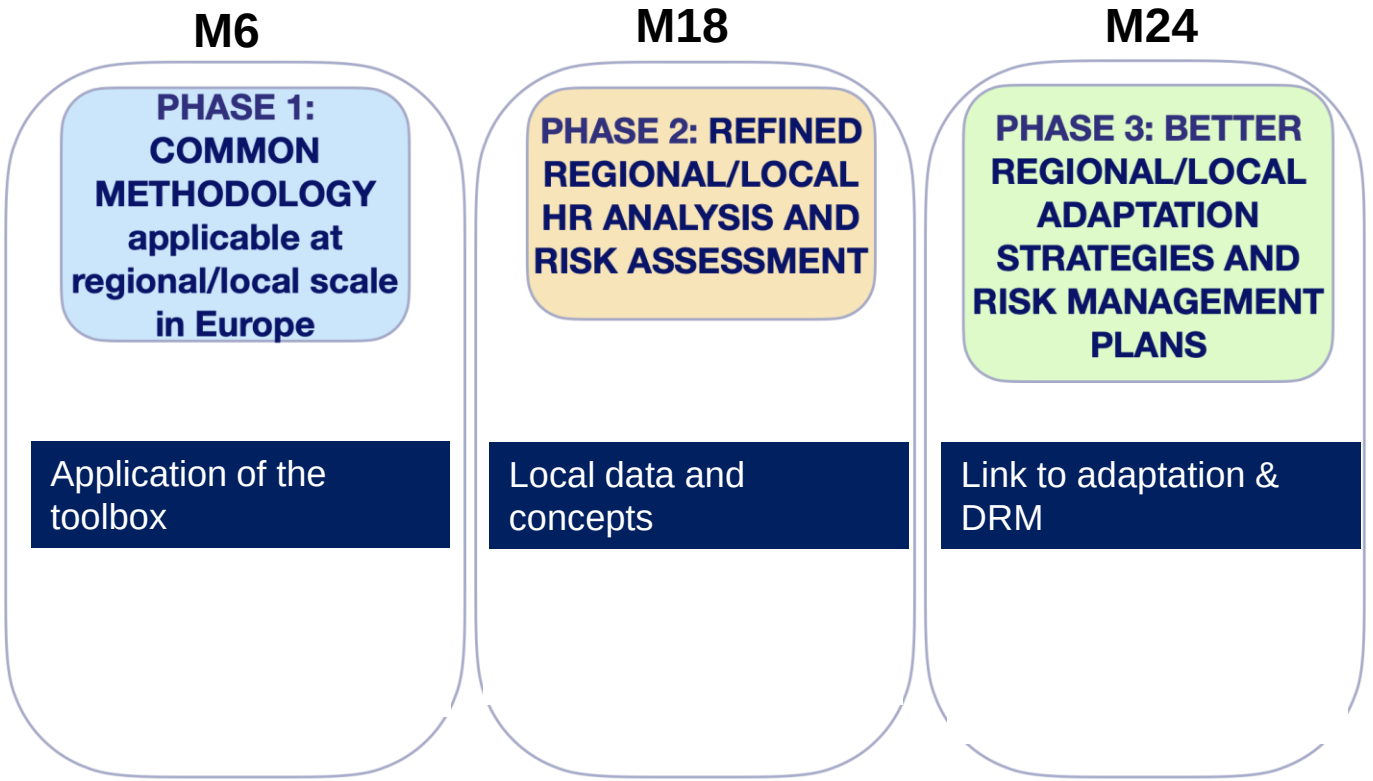
WORK TO BE PROPOSED IN THE APPLICATION



What do we want to learn from this?

Framework for regional CRA

→ supporting civil protection and climate adaptation

Toolbox and pilots

→ testing data needs and diversity of requests

Cascading fund

→ Financial support for >50 regions

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Learning by doing

5 Pilot regions

à Site visits revealed key issues

à Helping with shaping toolbox & application

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Learning by doing

5 Pilot regions

à Demo for applicants

Demo workshop

~29-31 January

Setubal (PT) + online

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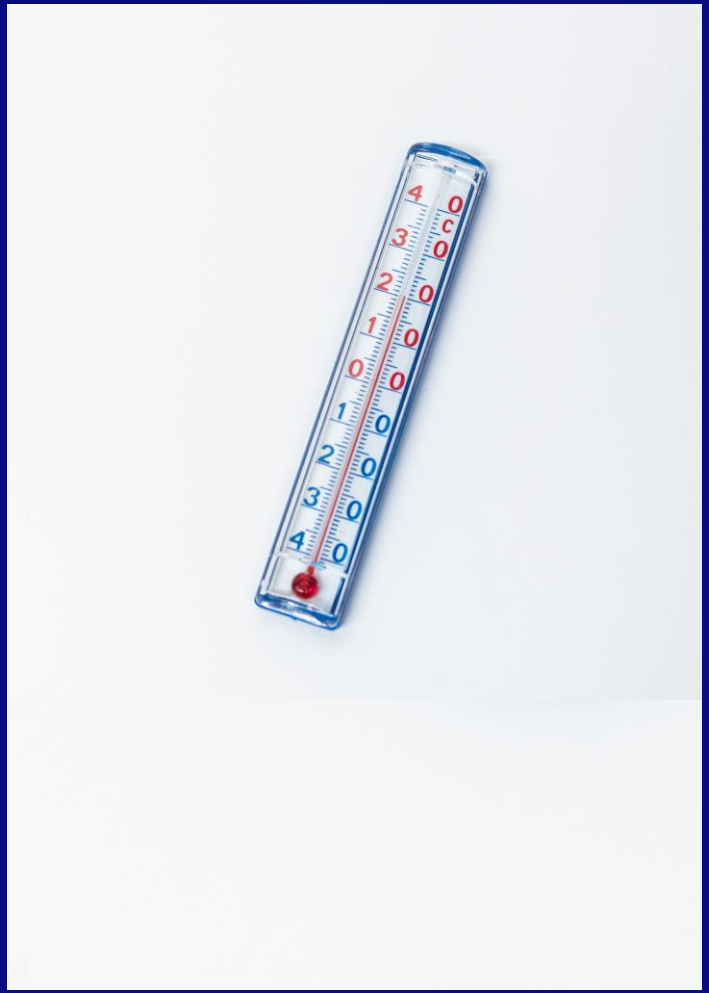
Synthesis of regional CRAs

Lessons to be learned

- Finetuning the regional support service
- Exploit the market potential
- CRA standardisation and connection to European policies



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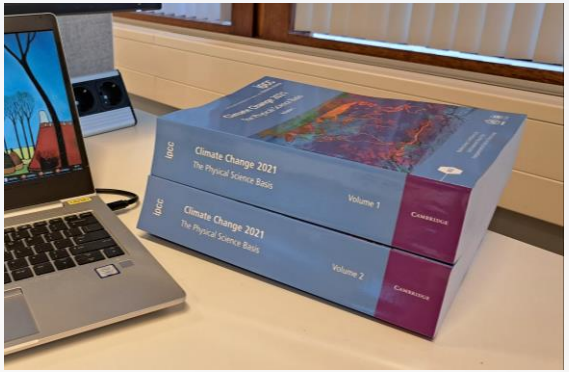
Legacy for my role in IPCC

Co-chair Working group 2

Action holders could recognize themselves better

→ Assessment via a set of *decision archetypes*



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The pillars of CLIMAAX

Framework for regional CRA

→ supporting civil protection and climate adaptation

Regional emphasis implies:

Local detail

Relevant climate drivers

of requests

regions

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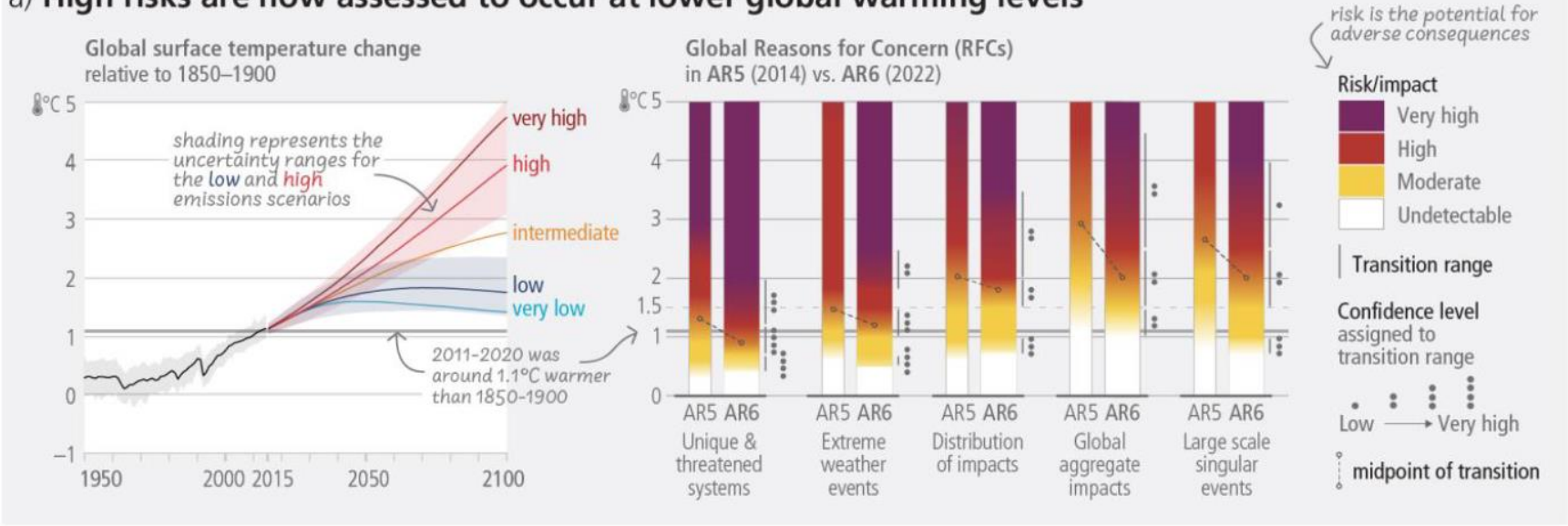
Headline statement from AR6

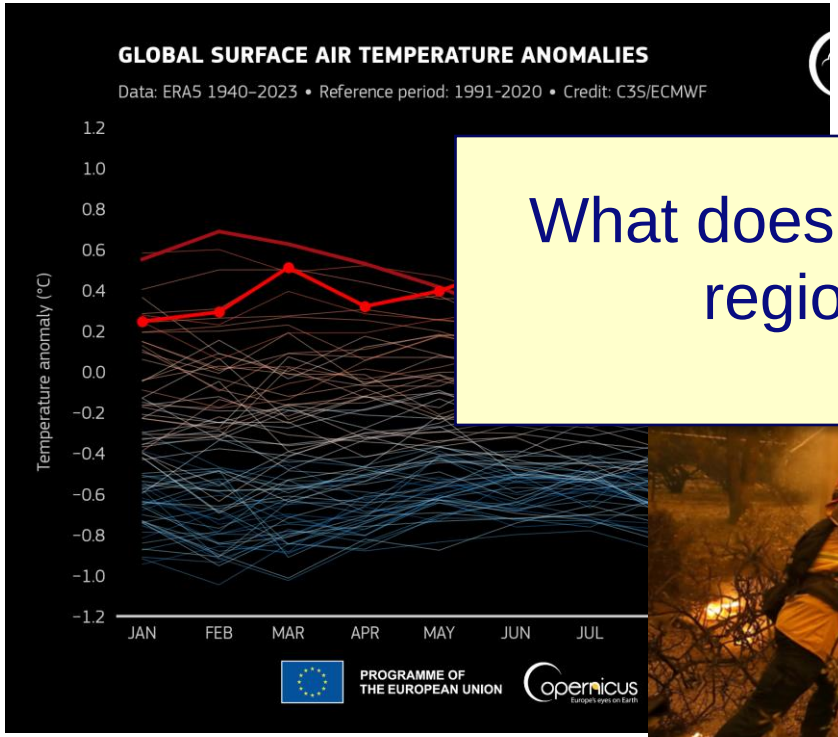
Risks are increasing with every increment of warming

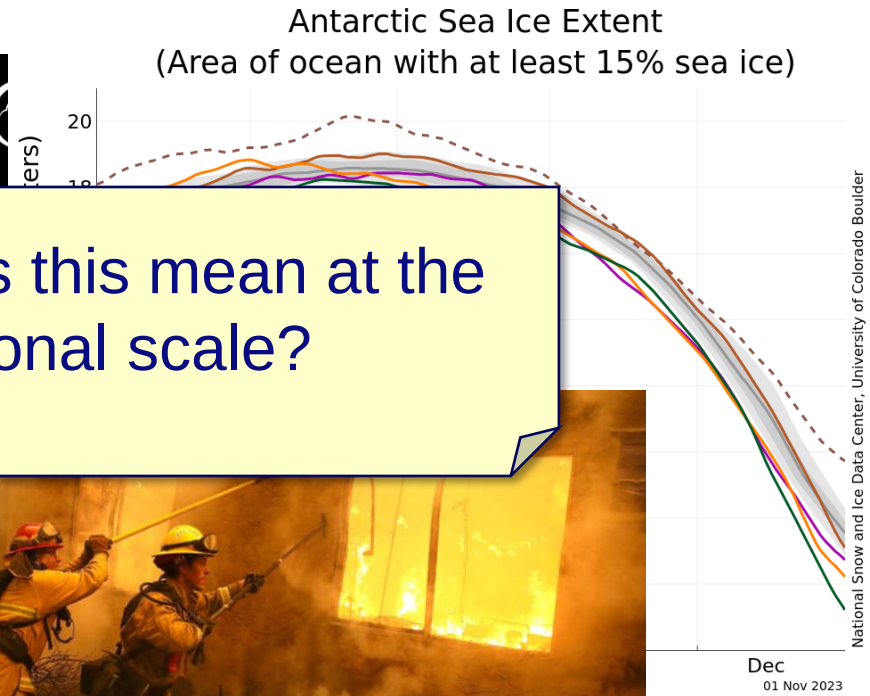
a) High risks are now assessed to occur at lower global warming levels



AR6 Synthesis Report SPM Figure 4a

The year 2023





What does this mean at the regional scale?

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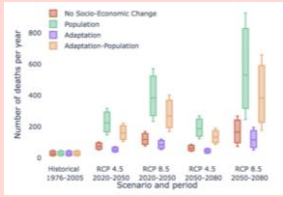
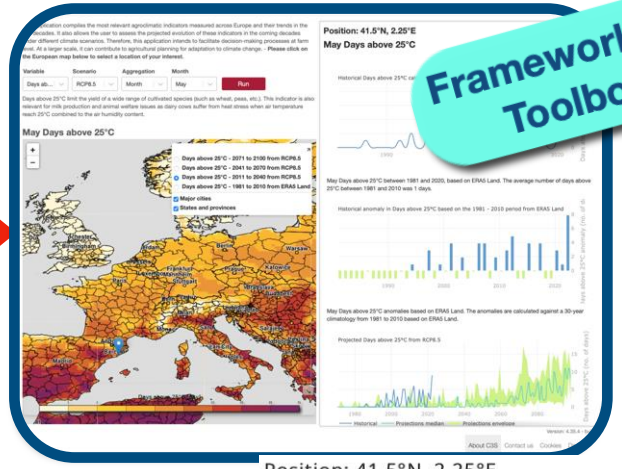
Floods
Flash floods
Landslides
Wildfires
Heatwaves
Coldwaves
Droughts
Wind storms
Snow falls…

METHODOLOGIES to assess the Increase of Impacts





Framework + Toolbox

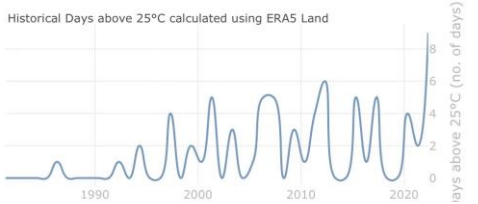
Position: 41.5°N, 2.25°E
May Days above 25°C

FOR ANY HAZARD

- Define a set of Climatic Indicators related to the variables triggering the different hazards
- Be able to calculate them in the PAST
- And in the FUTURE (projections)
- Pre-calculate these Indicators thoroughly => **NON BIASED projections**
- Be able to easy extract and represent them at any location

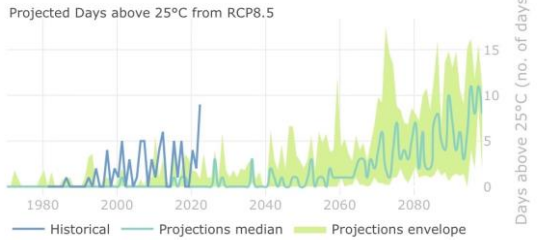
PAST

- ERA5 reanalysis

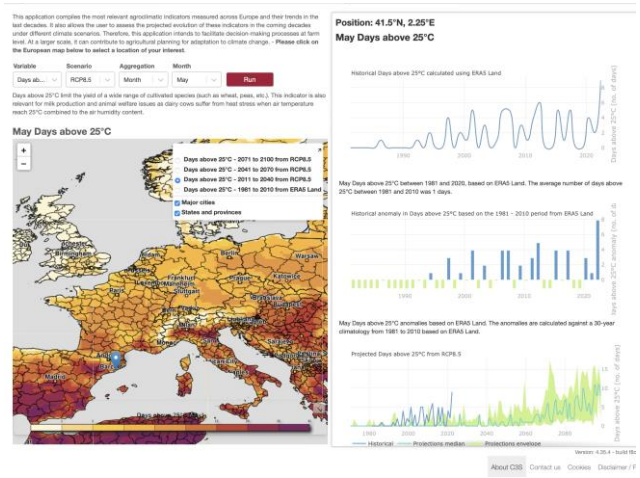


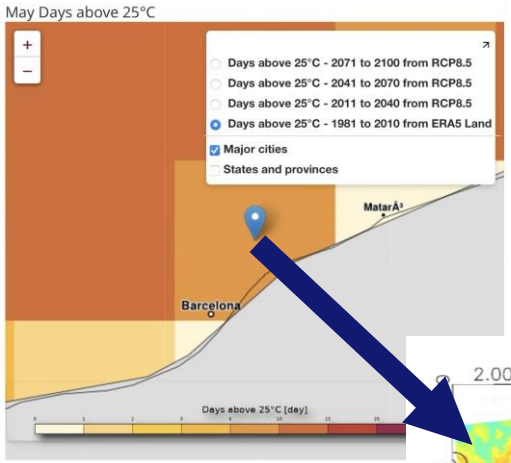
FUTURE

- NON-BIASED EURO-CORDEX dataset on different RCPs

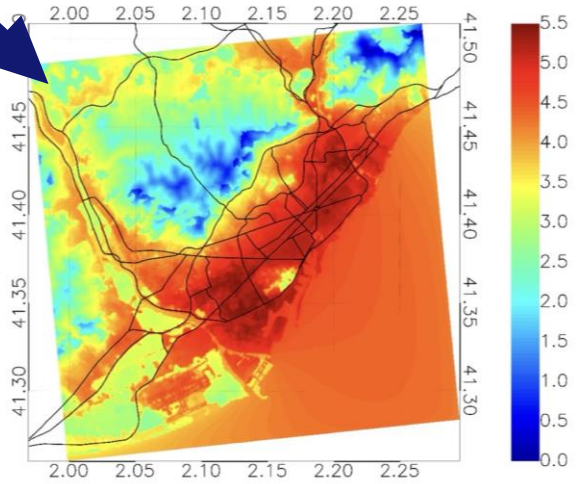


Need of downscaling and include local data





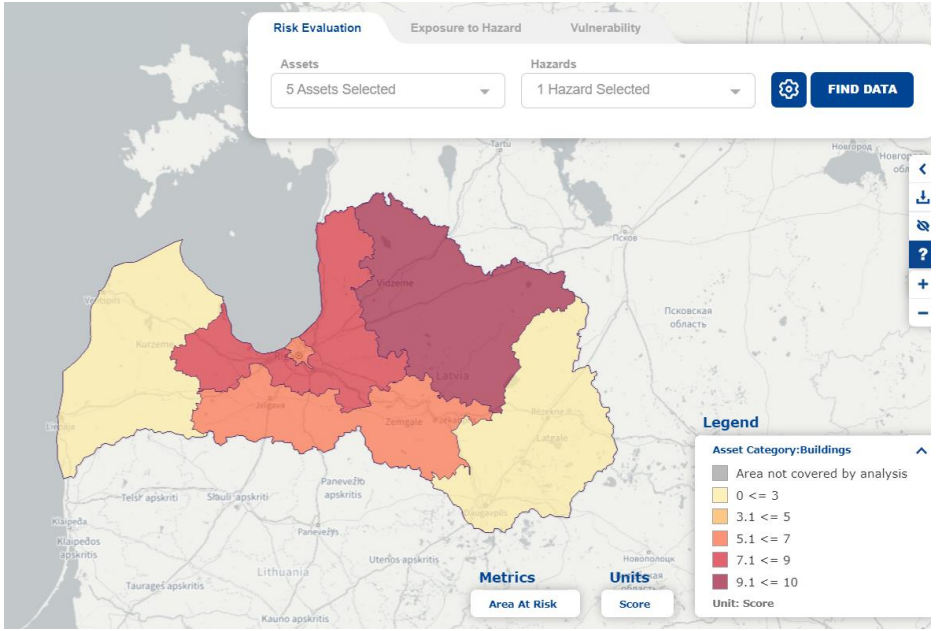
0.11º resolution



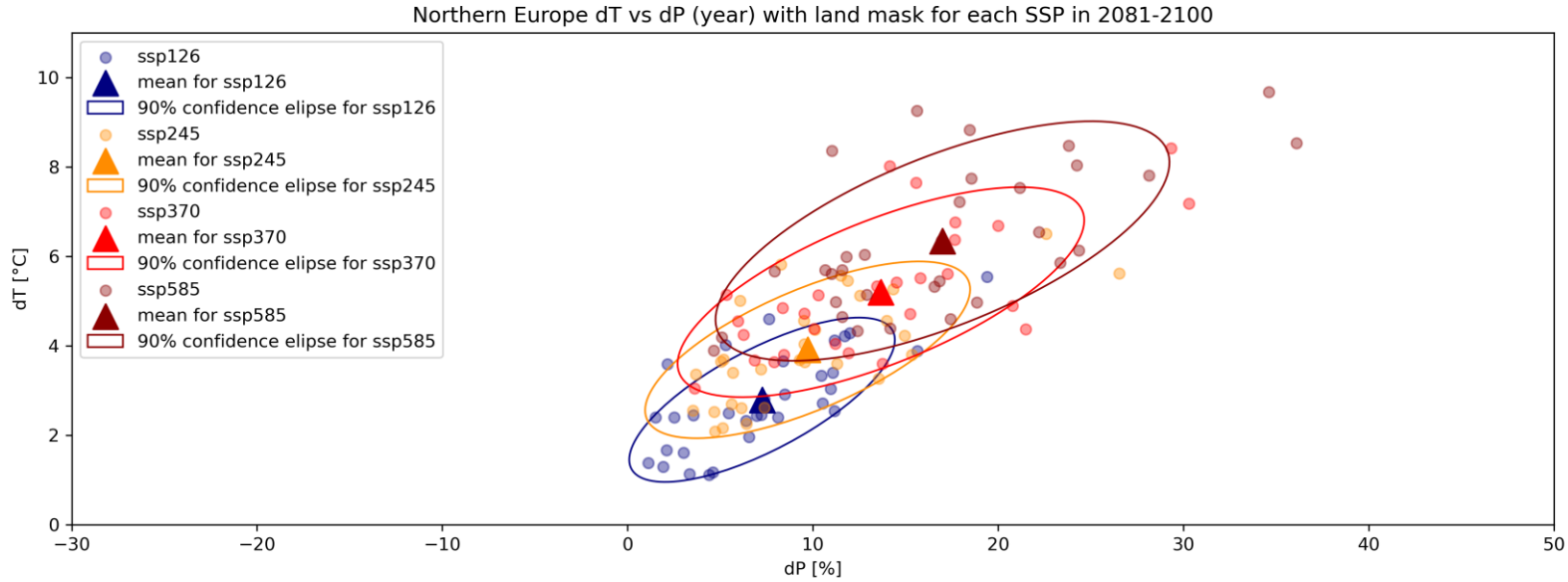
Need to support local downscaling and data integration at local/city level

Capturing local climate trends

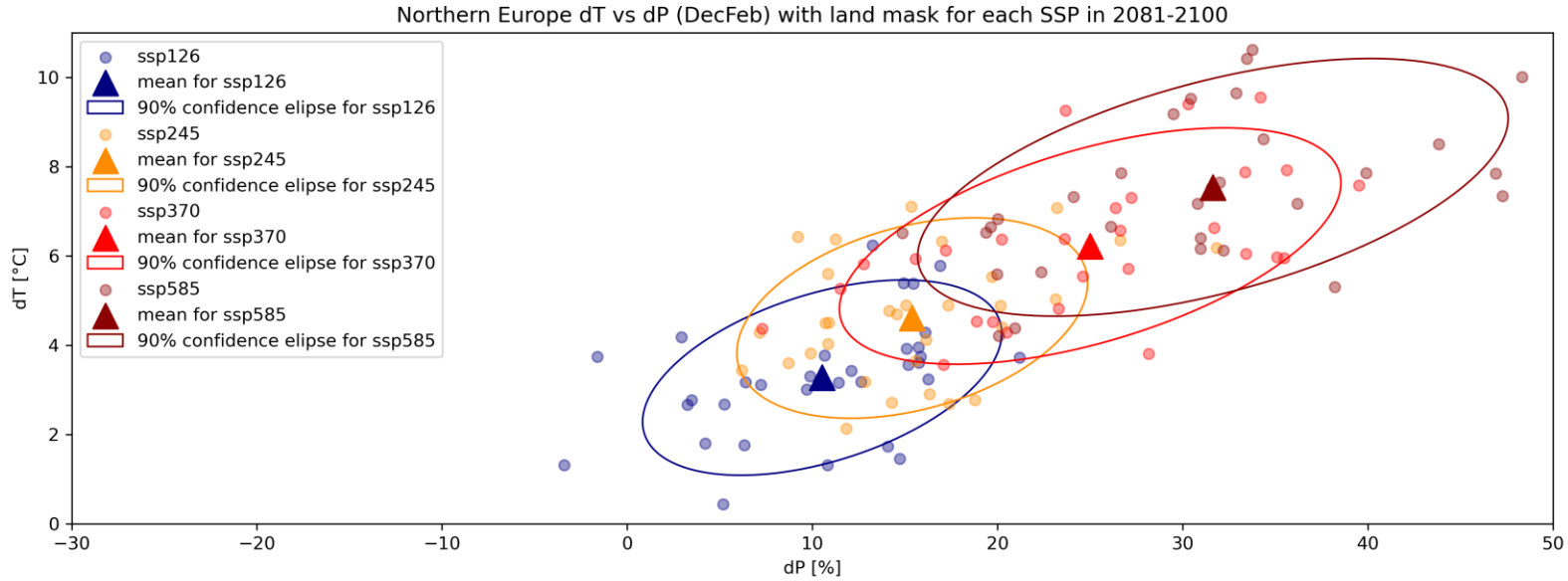
- The example of Latvia flood risk
- Spring floods due to snow melt
- Summer floods due to high precipitation



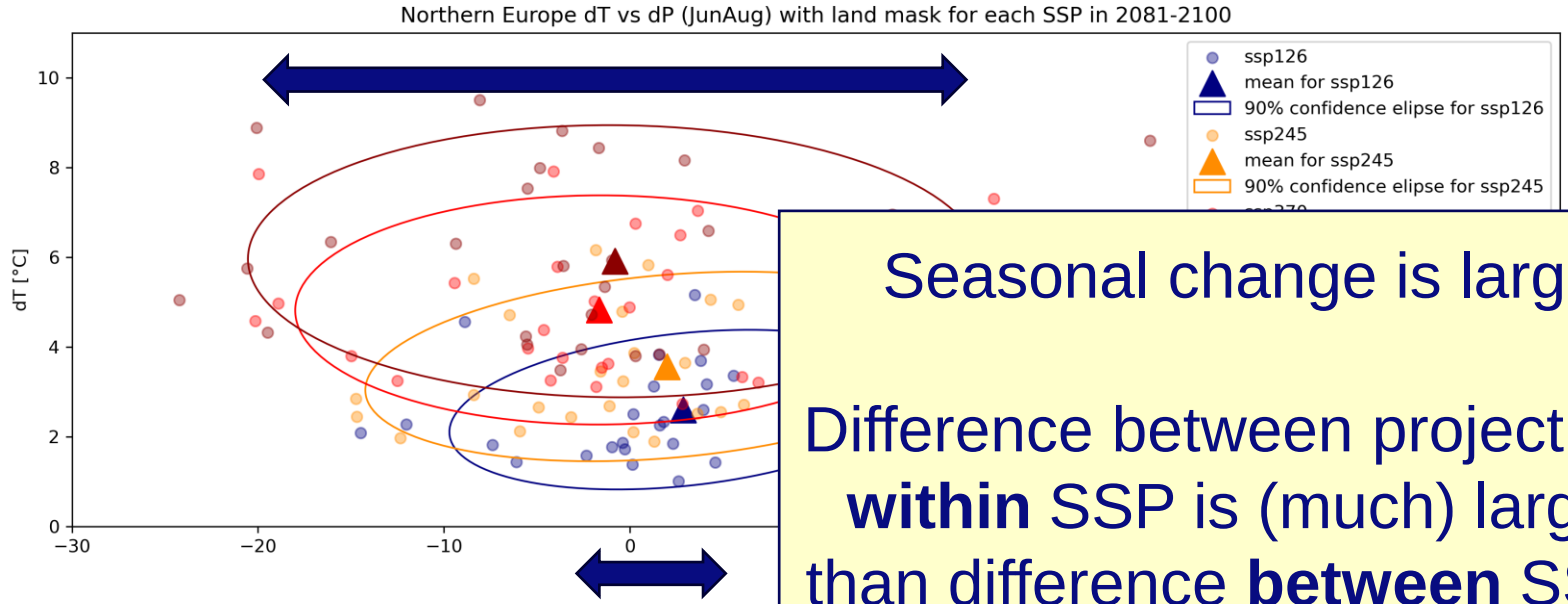
Change in regional temperature and precipitation (CMIP6)



Change in regional temperature and precipitation (CMIP6) – winter



Change in regional temperature and precipitation (CMIP6) – summer



Seasonal change is large

Difference between projections **within** SSP is (much) larger than difference **between** SSPs

Contact info

https://www.climaax.eu

Regional emphasis implies:
Local detail
Relevant climate drivers

CLIMAAX

Climate ready regions

CLIMAAX toolbox

A Comprehensive Introduction

Milana Vučković, Fredrik Wetterhall, ECMWF
Ted Buskop, Deltares

Info Day
23 November 2023

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Today

- What *is* the toolbox?
- What does the toolbox look like?
- How can you use the toolbox?

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What *is* the toolbox?

Principles & Structure

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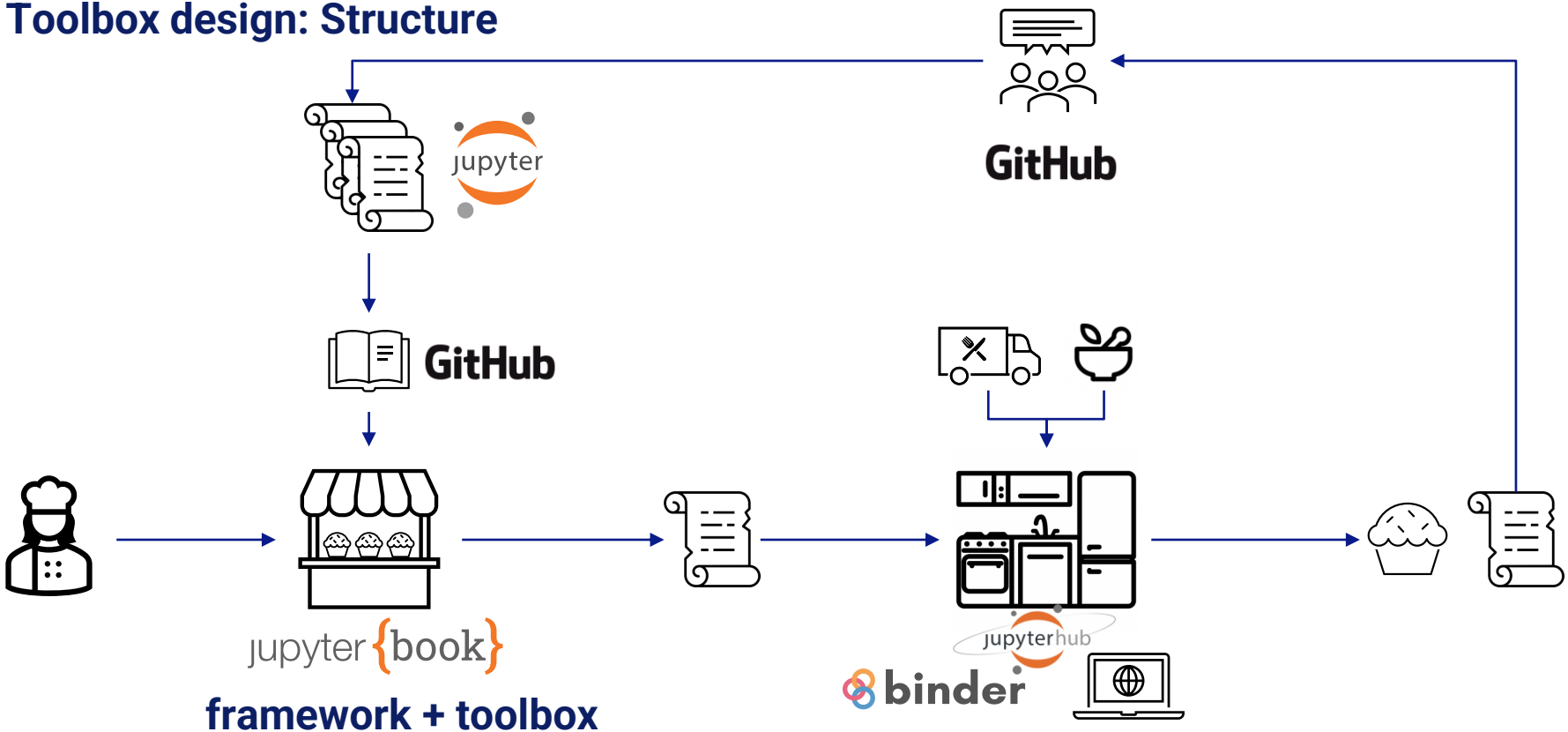
Toolbox design: Structure



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What does the toolbox *look* like?

First design

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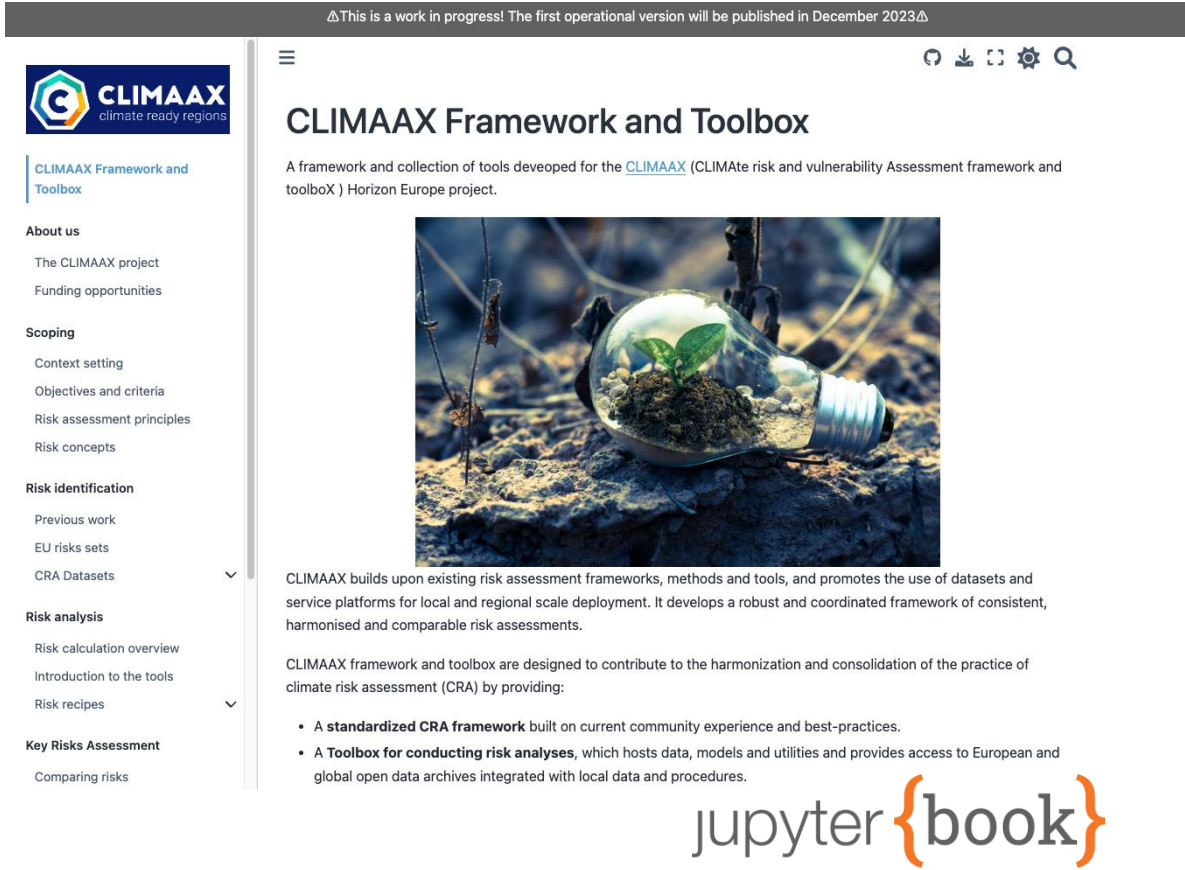
First design: Bakery store

A **website** where all

- cookbooks
- recipes
- ingredients

are shown and explained



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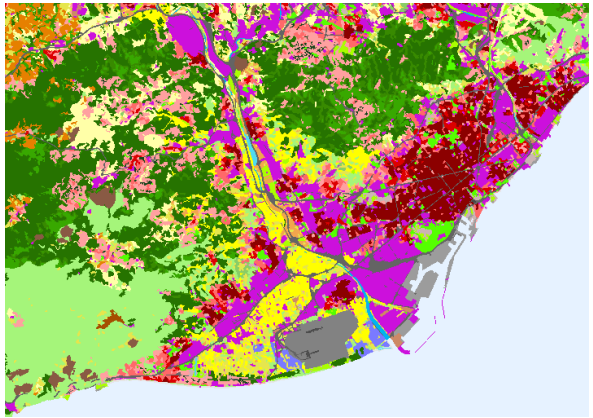
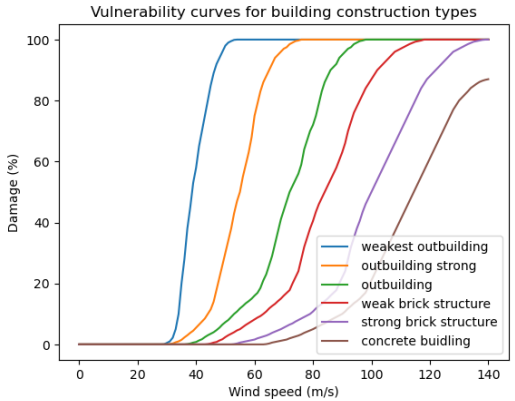
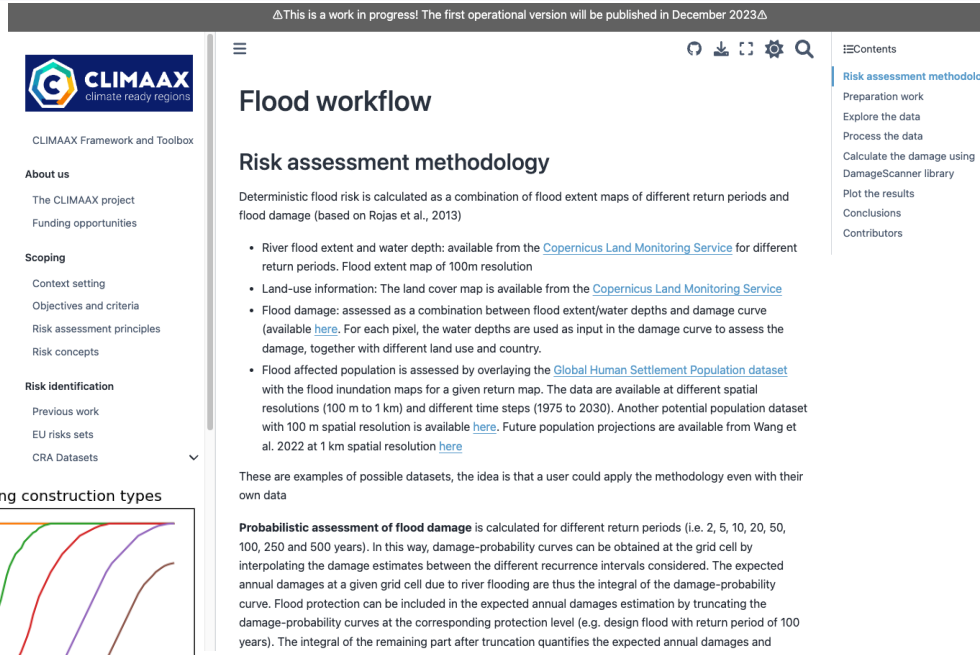
First design: Risk recipes

- Exploring recipes by Hazard, Exposure and Vulnerability
- Calculate risk
- Exploring CRA outcomes







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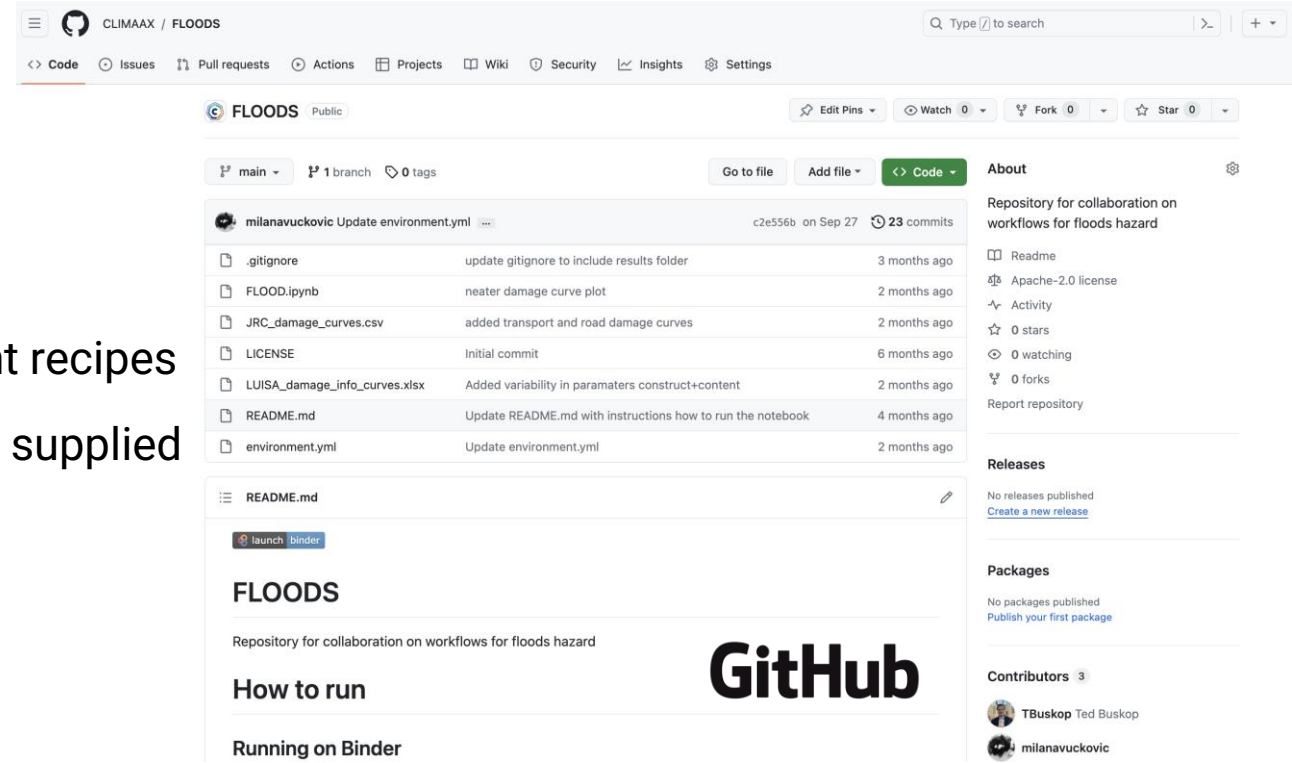
First design: Risk cookbooks

Each cookbook contains:

- Various risk assessment recipes
- A supply closet for data supplied by us
- Files for installation



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First design: Kitchen

Three levels of customisation:

binder No installation, small alterations, does not save work

jupyterhub Do alterations, save work, and upload local data but stay within a closed environment

Download and install on computer for complete flexibility and complexity

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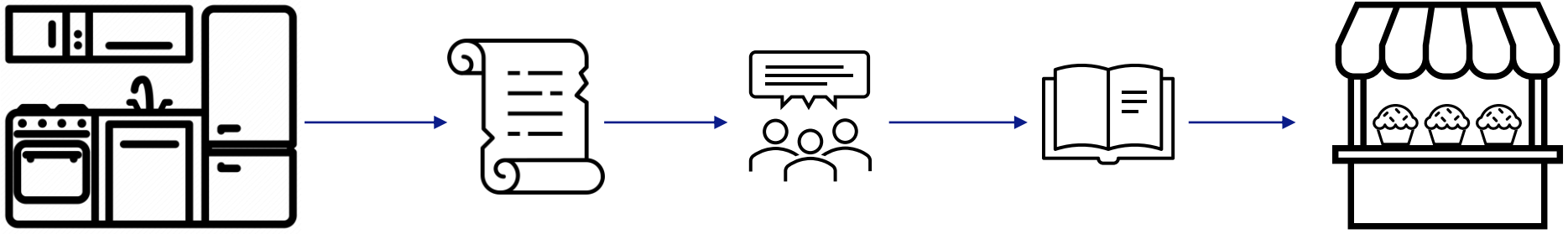
First design: Co-create

From a chef’s kitchen to the bakery’s favourite



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How can you *use* the toolbox?

The Demo

Have a first look:
https://toolbox.climaax.eu/intro.html

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Thanks

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Q&A

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Introduction to the Pilot Regions

Finnish pilot

CLIMAAX Info Day 23.11.2023

Juha Laitinen, Emergency Services Academy Finland
Riikka Salmi, Emergency Services Academy Finland

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Leadership of Major Accidents and Crisis Situations –Exercise

- **Organizator:** Emergency Services Academy Finland (ESAF)
- **Theme of the training in 2024:** Training situation and command center operatios, in accordance future guidelines
- **Participants:** Officers and Sub-Officers, Instructors, Police, Defence forces, Fire Departments and Border Guard Officers
- **Location of training:** Situational center at ESAF
- **Crisis Situation** will be given for students as a normal rescue alarm and they have to train their leadership in the crisis and also co-operation with various authorities
- **Finnish pilot** will be arranged within this exercise

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Leadership of Major Accidents and Crisis Situations –Exercise

- **Finnish pilot is executed** in co-operation with the **Ministry of the Interior**, **Finnish Meterological Institute and Emergency Services Academy**

- **Scenaario 1.** Major forest fire at 2024
- **Scenaario 2.** Major forest fire at 2124

- **The aim of the pilot** is to test by the toolbox how climate change will change forest fire risks during the next 100 years.

- **Finnish Meterological Institute (FMI)** will provide information for the different scenaarios by
  - **Natural disaster warning system LUOVA** provides real time meterological informations and for Incident Commander
  - **Spreading model of fire** will give information of propagation of fire and evacuations needs
  - **Spreading model of contaminants** will give information of the spreading of contaminants

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Leadership of Major Accidents and Crisis Situations – Exercise

OUTCOME

- To see the impact of climate change on forest firefighting in future
- How systems deserves first responders and how them should be improved
- What new resources will be needed in the future for extinguishing forest fires
- Information to support decision-making and understanding about challenges, what we will face in near future due to climate change

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Thank you

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The region of Catalonia

Pilot in CLIMAAX

Ainara Casajus Valles, DGPC

Civil Protection Directorate, Interior Department
Regional Government of Catalonia

November 2023

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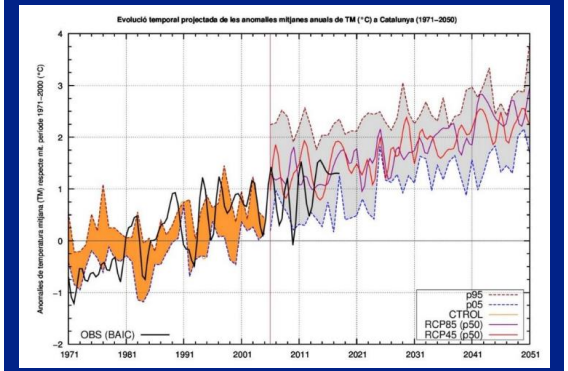
Catalonia region

- 8 million people, in almost 1000 municipalities.
- Wide geographic diversity.
- Decentralised state model, where regions adopt most of the planning and response instruments.
- A warmer and drier region is expected in the future.
- The «Catalan Strategy to adapt to climate change» calls for natural hazards and civil protection actions to be further studied and tackled through sectorial plans and land-use and urban planning.



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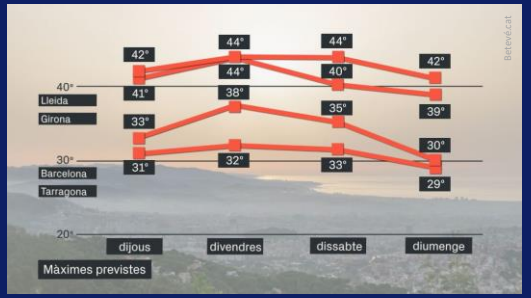
Needs and options

Wildfires

New areas at risk?
Longer wildfire season?
Days of extreme danger?
Changes in the fire behaviour?

Flash floods

More frequent torrential episodes? Reduction of the return periods? New assets at risk? Reduction of the time to protect population?



Heatwaves

More frequent and longer episodes?
Need to discuss thresholds?

Preparedness and response to disaster risk: recommendations for land-use planning, design of EWS, evacuation/confinement, review plans and protocols (with other operative teams), etc.

Pilot on-site visit
September 2023

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CLIMAAX InfoDay

Empowering Regions for Climate Resilience

Cristina Coelho, Setubal Municipality

23 November 2023

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Iceland Liechtenstein Norway grants

PLAAC – Arrábida

Local Adaptation Plans for Climate Change

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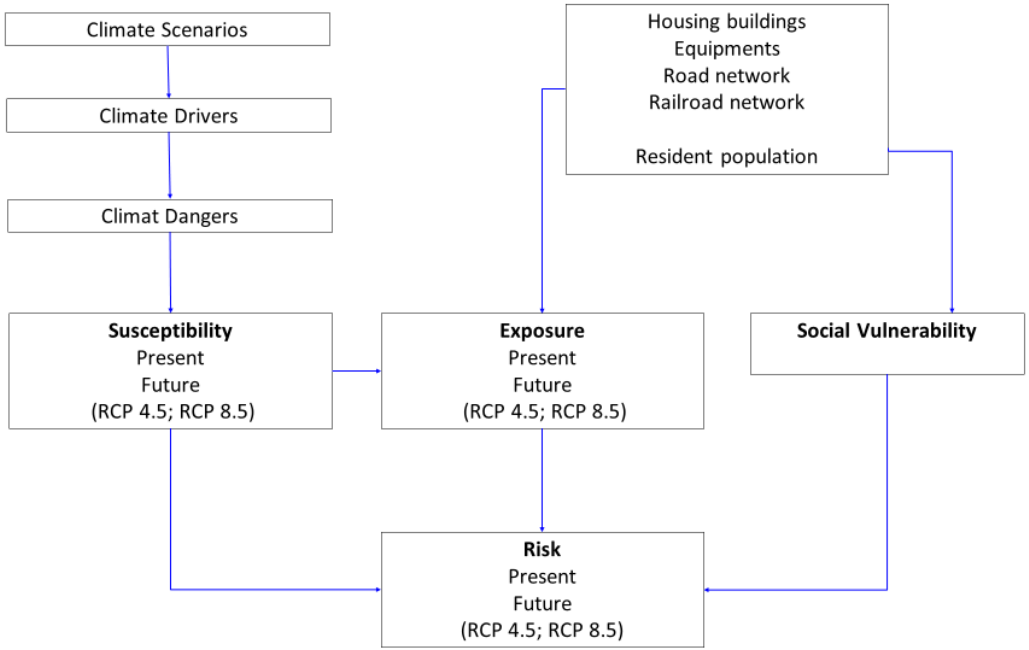
Methodology



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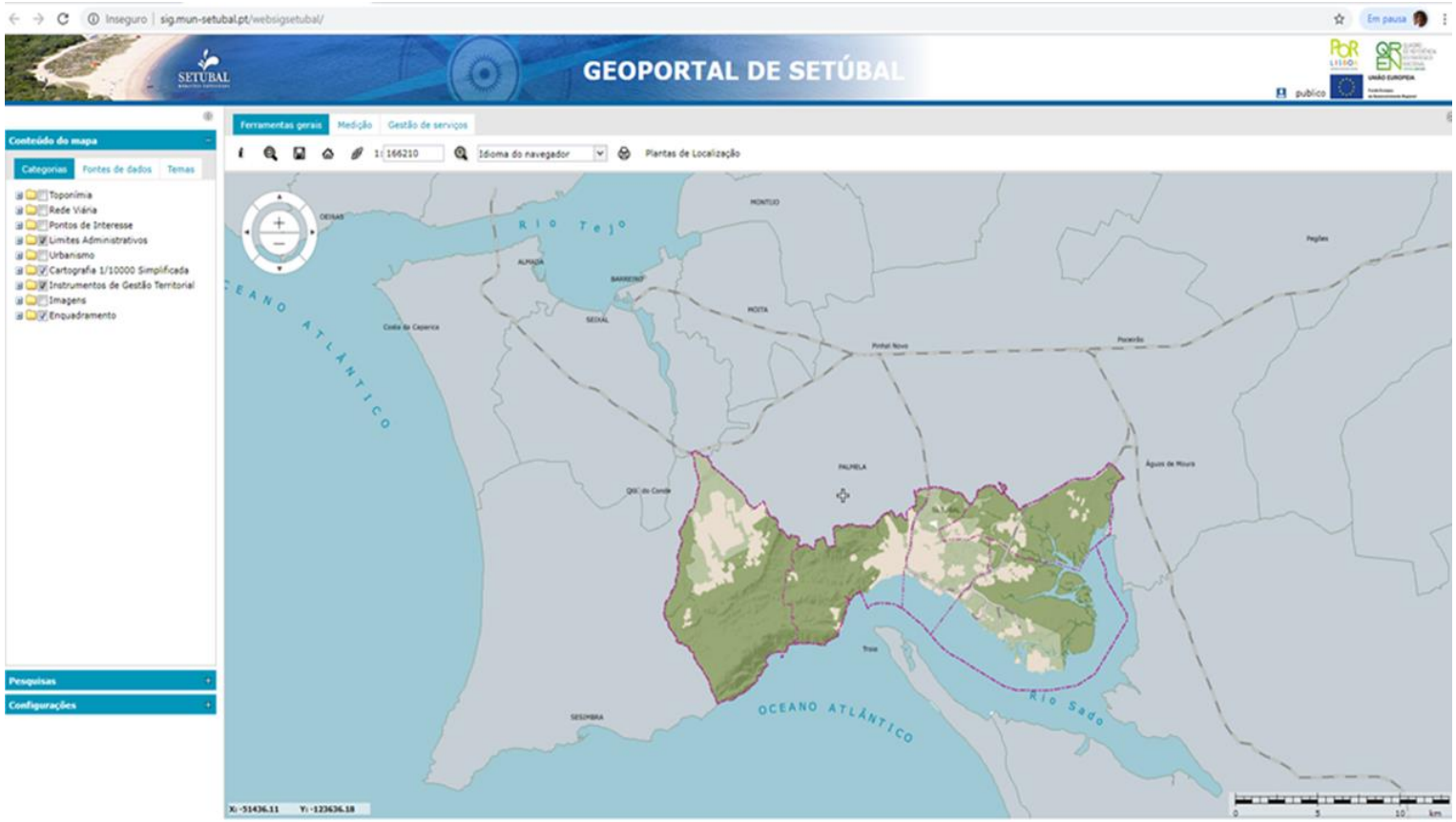

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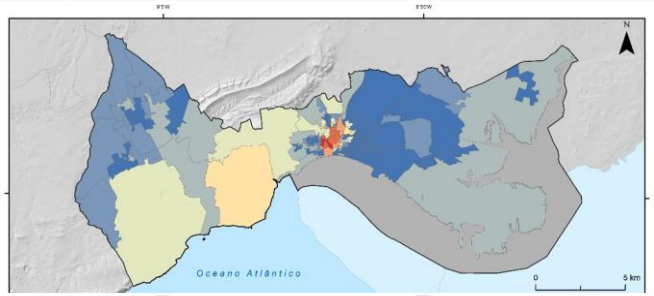
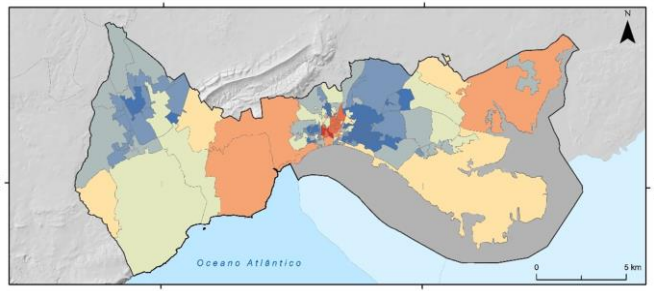
Multidanger RISK

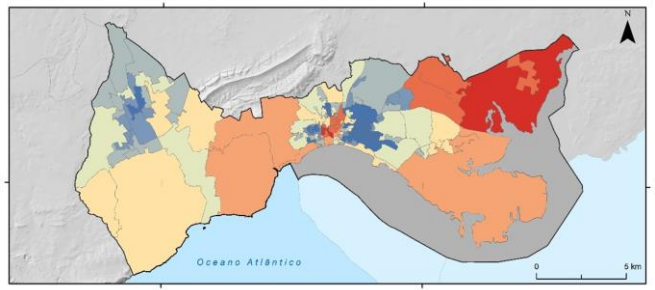
PRESENT

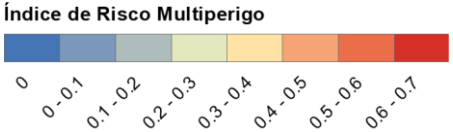


FUTURE (2100)
(Scenario RCP 4.5)



FUTURE(2100)
(Scenario RCP 8.5)





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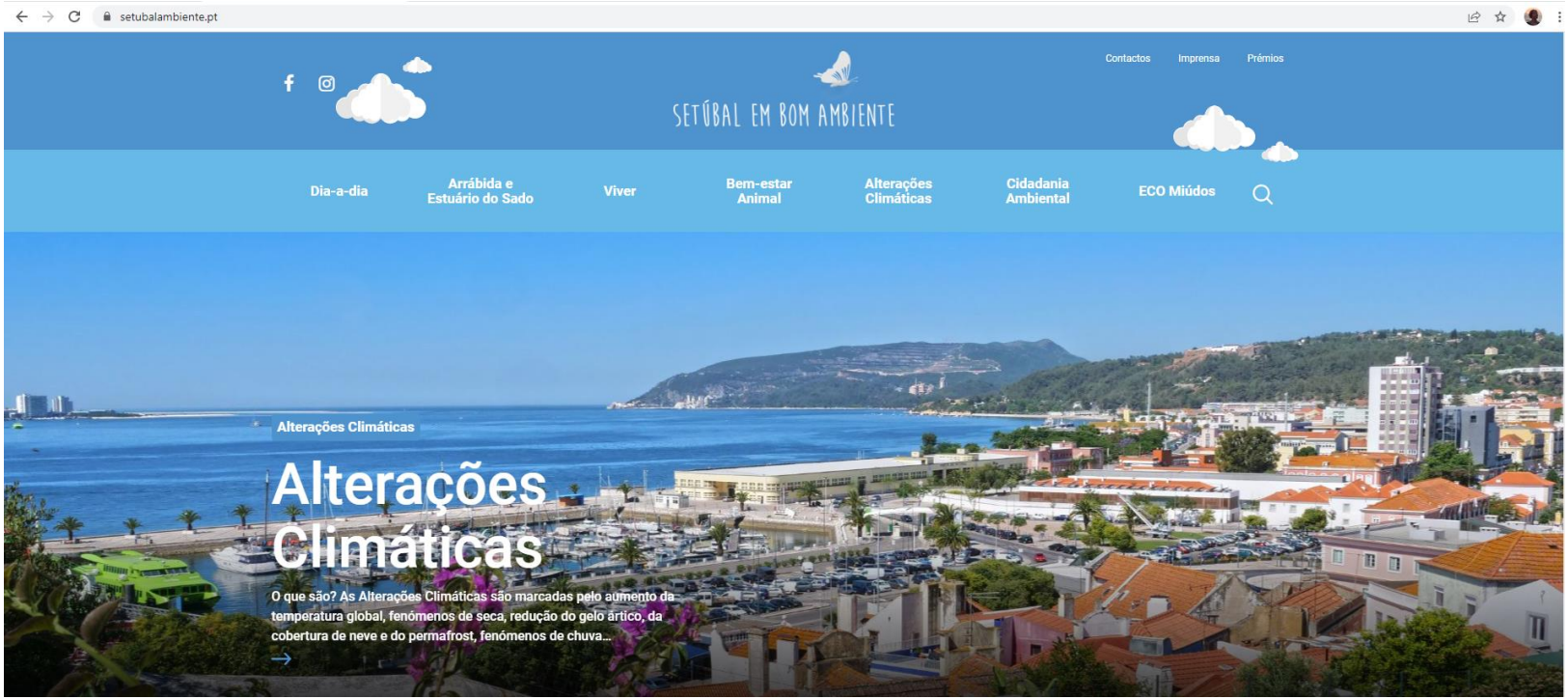

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CLIMAAX
climate ready regions

www.climaax.eu

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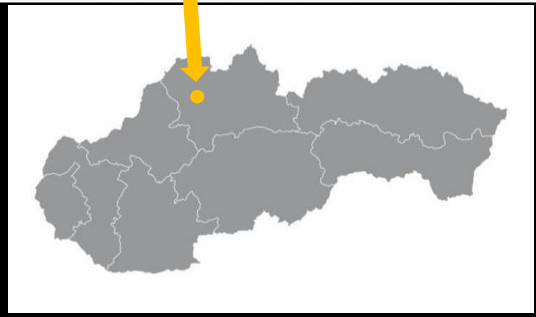
ŽILINA pilot city
in CLIMAAX project

Basics about Žilina



- 80 000 inhabitants
- Confluence of 3 rivers
- Average temperature:
  17,3 °C (Jul) / −3,1 °C (Jan)
- Annual rainfall: 760-780 mm
- Snow cover: 66-75 days/year

CLIMAAX Project for Žilina

- **Goal**:

Improving city's climate change risk assessment and adaptation via expert systems for:

  - Risk events forecast
  - Recommendations for preventing and mitigating the effects of risk events

  using actual available SW tools and available data integrated from local, national and global sources

- **Special benefit**:

Getting a European perspective on the issue, an opportunity to tune own systems via interactions with experts from other parts of Europe

CLIMAAX Project for Žilina – End Users

- *Risks and damage events managers:*
  improving system of risk events predicting and reacting
- *Environment Department:*
  improving climate change adaptation strategy and activities (road maintenance, greenery)
- *City Architects office:*
  improving city development plans & supporting their statements towards citizen applications
- *Citizens and visitors:*
  improving protection against climate change events

CLIMAAX Project for Žilina Focusing on

A | Urban floods – pluvial and fluvial
A | Extreme heat

B | Landslides
B | Wind storms
B | Droughts

C | Blizzards
C | Forest fires

Currently...

Collecting **local** data on time, place, intensity & **national** data on

- Flooding events in Žilina
- Over-heated places in the city

Communicating with

- City's fire and rescue service
- Slovak hydro-meteorological institute
- University of Žilina
- Žilina region office
- Slovak Environmental Agency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CLIMAAX climate ready regions

Assessment framework and toolboX

Introduction to the Open Call

Anca Marin – Funding box

CLIMAAX **Financial Support to Third Parties**

2 Open Calls for regions and communities

- At least **60 regions & communities** selected
- Criteria include **diversity and needs**
- **Support** during the application process
- Guidance for the **framework and toolbox**
- **Transparent** selection procedure & criteria
- Up to **22 months** support programme
- Support in the **procurement process** for external, specialized services

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OPEN CALL FOR REGIONS and COMMUNITIES

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climate ready regions

- Maximum funding per project: **up to EUR 300 000**
- Duration of the support programme: **22 months**
- Total budget for this call: **EUR 5 400 000**
- Single stage submission: *est.* **8 December 2023 - 8 March 2024**
- **Online** submission
- Only **English** language
- Budget in **EURO**

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OPEN CALL TIMELINE

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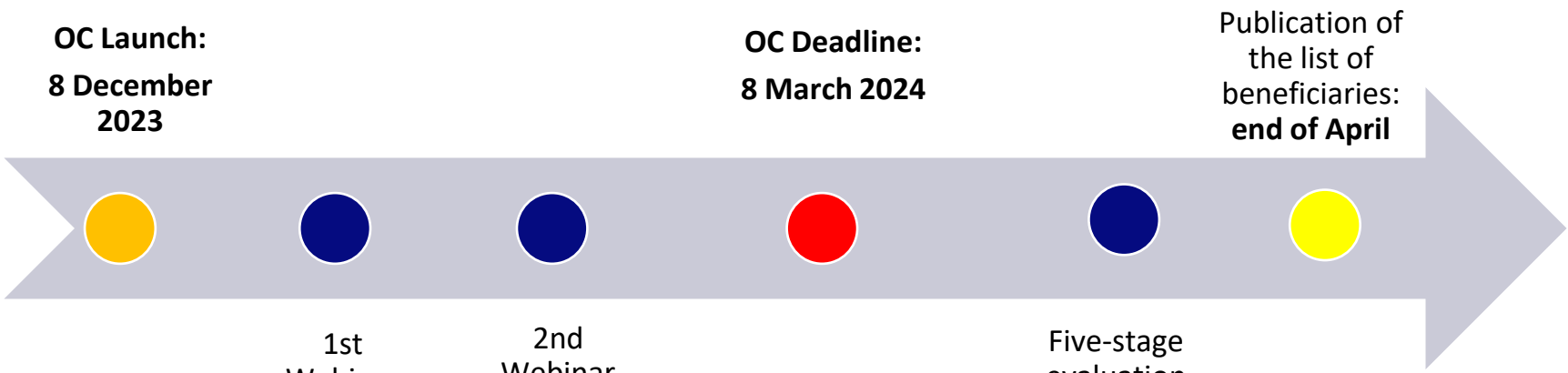

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WHO ARE WE LOOKING FOR?

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- **Regions/areas** with **high vulnerability to climate change impacts** requiring the implementation of Climate Change Adaptation strategies and/or updated Risk Management Plans

Eligible applicants:

- **Public bodies** (including regional authorities, municipalities, as well as public agencies) with a mandate to develop Climate-related Risk Assessments and Risk Management Plans in a given region or community.

- **Non-profit legal entities representing a local/regional community** of people with social ties, shared values, or interests, engaged in joint action developing their activities in areas with vulnerability to climate change impacts and challenged by climate change adaptation.

The entities have to be established in any:

- EU Member State and its Overseas Countries and Territories or
- Horizon Europe Associated Countries

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WHAT ACTIVITIES CAN BE FUNDED?

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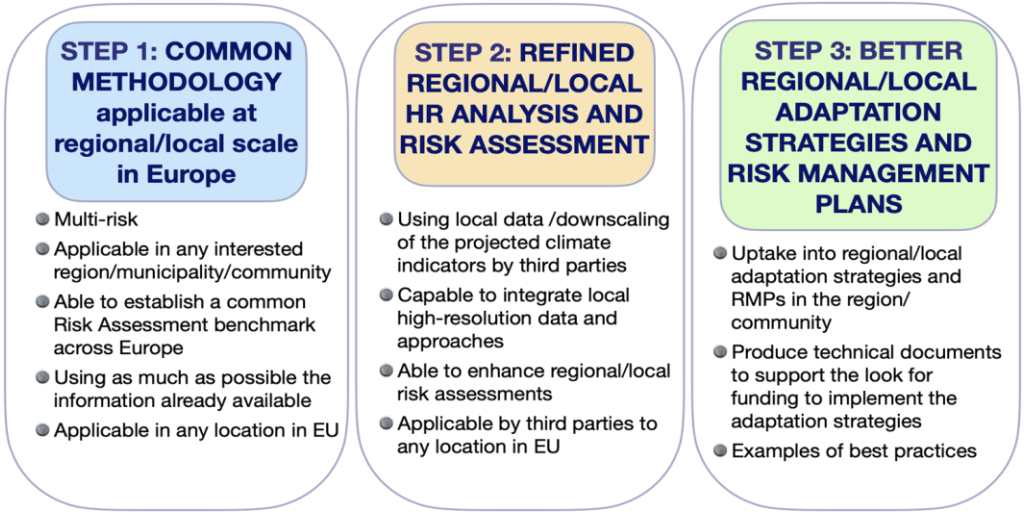
- Proposals generating regional/local multi-risk climate assessment
- Following methodological principles of:
  - **coherence** (addressing hazard, exposure and vulnerability),
  - **quantitative approaches** (using appropriate observational or model-based data),
  - **different climatic regions** (incorporating multiple hazards),
  - ensure **spatial and temporal** comparability (allowing a climate risk synthesis across multiple regions and time windows)
- Include activities that address these **3 Phases**



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EVALUATION CRITERIA

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RELEVANCE

- **Ambition:** Alignment with the objectives and activities as described in the call for proposals.
- **Dimension:** Contribution to local/regional long-term policy objectives, relevant policies and strategies.
- **Community engagement in climate change adaptation:** Relevance of the adaptation engagement of the community.
- **European Dimension:** Extent to which the project will support EU strategies

IMPACT

- **Vulnerability to Climate Change Impacts:** Priority given to regions or communities with activities in locations considered as highly vulnerable.
- **Limited resources:** Priority given to regions or communities with limited resources to increase climate or disaster resilience.
- **Expected impact of the implementation**: Priority given to regions or communities in which the implementation will lead to a significant contribution to better adapt the activities/key community systems of the applicant to climate change.

IMPLEMENTATION

- **Team**
- **Resources**
- **Implementation Plan**

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EVALUATION PROCESS

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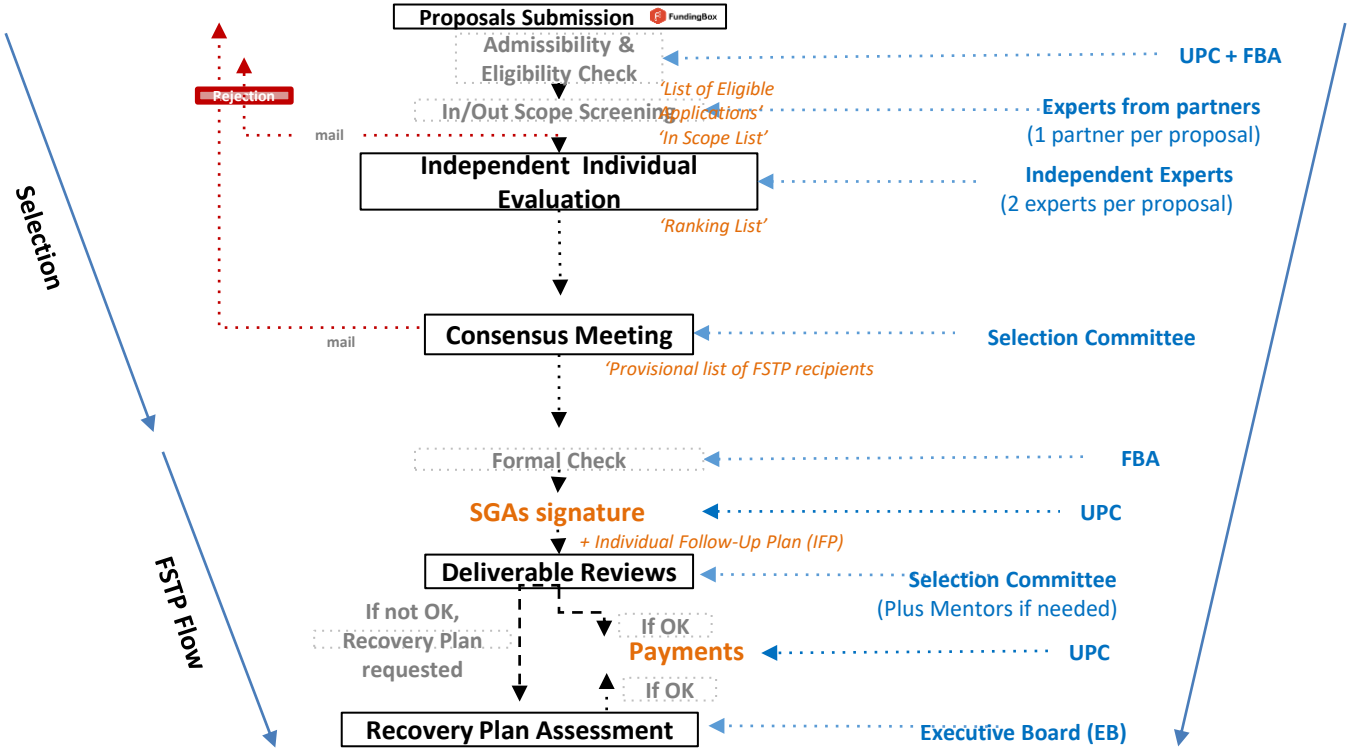
climate ready regions



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HOW TO APPLY?

- **Open Call resources**

Guide for Applicants, FAQ, Application form, CRA Framework and Toolbox, Informative sessions

Guide for applicants

A must-read if applying to the Climaax Open Call. It includes a detailed description of the scope of Open Call and others.

Check the guide

Frequently Asked Questions

A complimentary document that includes a list of common questions asked by applicants.

Read it here

Application Form

Kindly note that as the online application form requires the completion of each section to successfully save the progress, this template has been provided to help applicants prepare

Informative webinars

Watch webinars that were conducted to present the Open Call and to conduct the Q&A sessions. Find answers to applicants' questions.

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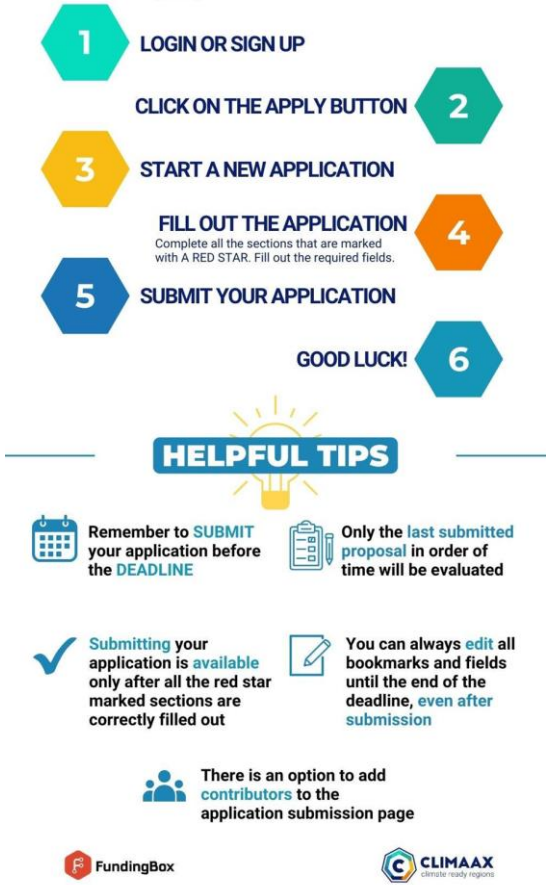
- **Online application form**



- **Helpdesk support**

Get more information, ask your questions and join the conversation

HELPDESK

Contact info

https://www.climaax.eu

info@climaax.eu

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Become a part of the

RESILIENCE REVOLUTION

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